

# Glasgow and the Clyde Valley Strategic Development Plan

## **Proposed Plan**

Background Report 11

## **Wind Energy Search Areas**

June 2011





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# 1. Introduction

## Background

The purpose of this Background Report is to establish a spatial framework for Wind Energy that supports the Proposed Plan for the Strategic Development Plan (SDP).

This will help guide future wind farm development proposals and aims to provide strategic background information for decision-making.

This report sets out the methodology undertaken and locational guidance on how strategic wind energy issues should be dealt with throughout the Strategic Development Plan area. This report is supported by the *Wind Energy Spatial Framework Proposed Methodology* that was published for consultation in March 2010.

The primary aim of this report is to identify broad areas of search for strategically significant wind energy development which is defined as an output capacity of 20 MW or more. The siting of wind energy developments of less than 20 MW is a matter for the individual local authorities.

It is also recognised that there is a large number of wind farms that fall under the 20MW threshold which may raise issues of cumulative impact. Such issues are most appropriately considered at a local authority level.

## Context

The Scottish Government has set a target of meeting 50% of electricity demand to be supplied from renewable resources by 2020, with an interim milestone of 31% by 2011.

Planning authorities are responsible for determining applications for wind-farm developments which are below a generating capacity of 50MW. Where there is an output of 50MW or more, applications are determined by the Scottish Government under Section 36 of the Electricity Act 1989.

The Scottish Planning Policy (SPP) states that planning authorities should support development of wind farms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. Development Plans are required to provide a clear indication of the potential for development of wind farms of over 20MW and set out criteria that will be considered in deciding wind farm applications. This report sets out the recommended methodology for consideration by the constituent authorities in assessing wind-farm applications appropriate at the SDP level.

Having identified areas requiring significant protection and areas that have other potential constraints on wind farm development, planning authorities are required to identify areas of search where there are no significant constraints on development. It is, however, recognised that these areas of search may have further constraints, including:

- other natural heritage interests;
- project viability, including wind speed, site access, ground suitability and other environmental factors; and,
- grid capacity.

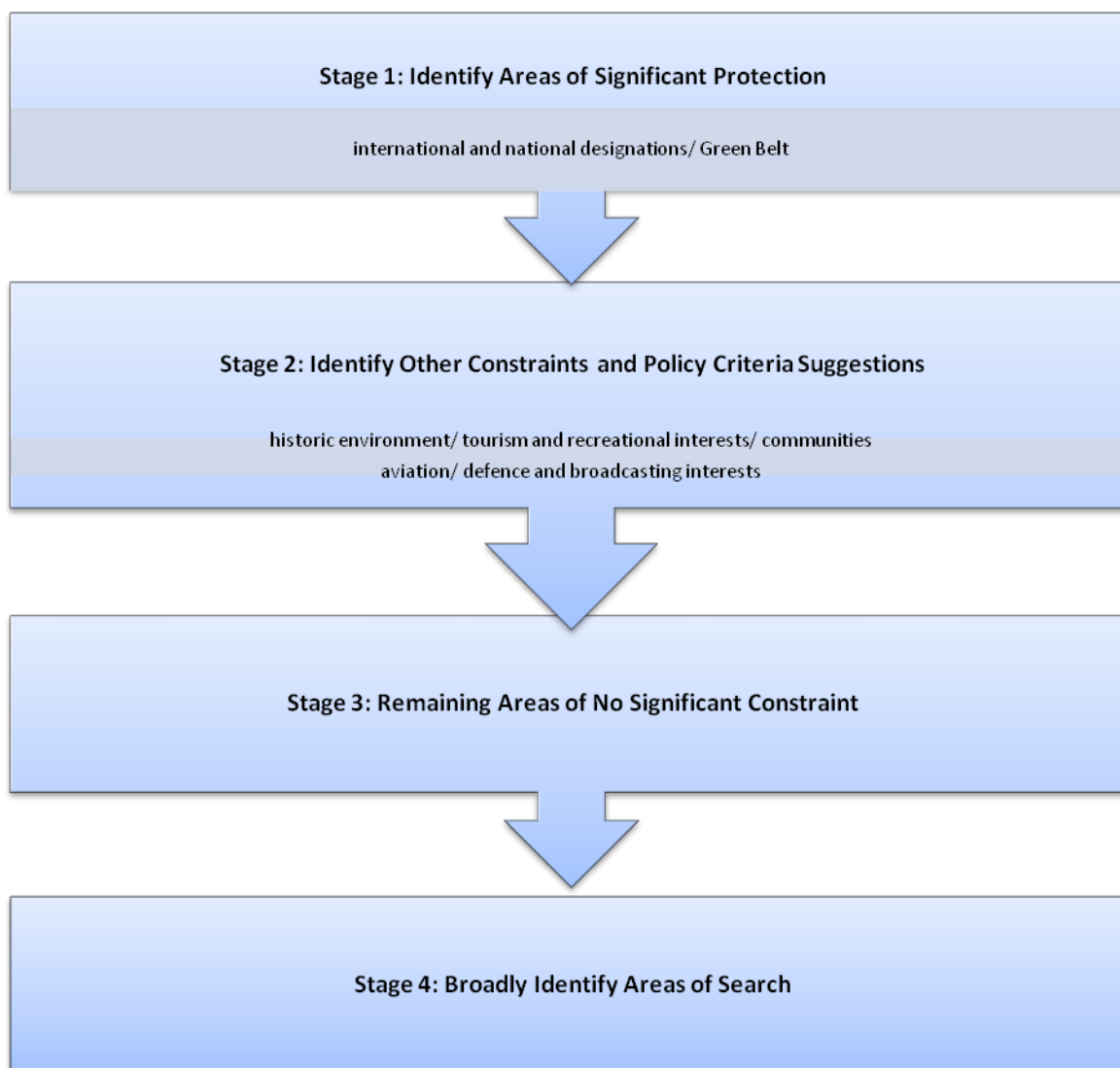
The Third Alteration to the 2000 Glasgow and Clyde Valley Structure Plan, which became operational in April 2008, set out in Strategic Policy 8b) support for developments within the potential areas of search identified on Diagram 22 'Renewable

Energy'. These areas were located on the southern and eastern edges of the structure plan area. The supporting text for Strategic Policy 8b) clarifies the potential areas of search should be subject to further evaluation of the strategic sensitivities and detailing through the local planning process e.g. in terms of their scale and cumulative impact, including on adjoining council areas. This report aims to refresh this approach for the SDP.

## 2. Methodology

This report generally follows the methodology proposed in PAN 45 Annex A and sets out a process for a spatial strategy based on constraints mapping and the identification of broad areas of search (summarised in Figure 1). The report establishes broad areas of search that will be subject to more detailed local site analysis, including assessment of cumulative impact, visual impact and landscape capacity by the individual local authorities.

**Figure 1: Methodology**



## **Stage 1 - Areas of Significant Protection**

This first stage involves identifying areas that may be unacceptably compromised by the location of a wind farm and includes the two factors outlined in Figure 1 above.

- **International and National Designations**

Internationally and nationally recognised environmental resources are protected from inappropriate development, including large scale wind farms, and such development should be directed away from these designations and any adjoining sites which might impact upon them. Development proposals which are likely to have a significant effect on Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) (collectively known as Natura 2000 sites) are required to undertake an 'Appropriate Assessment' of the conservation interests for which the area is designated<sup>1</sup>.

The policy criterion for assessing proposals is concerned with the potential effects on the interests which the designation is intended to protect. Development should only be permitted where the objectives of the designation and the overall integrity of the area will not be compromised or have any significant adverse effects on the qualities for which the area has been designated.

- **Green Belt**

Green Belts are designated for the purpose of managing the growth of a town or city in the long term. The GCV Green Belt is a valuable resource which plays a crucial role in the delivery of the Green Network by protecting and giving access to open space within and around towns. It also protects and enhances the character, landscape setting and identity of settlements. However, it is recognised that the objective of green belt designation is not to prevent development from happening, only to manage its location and avoid certain negative consequences. Therefore it can be assumed that under certain circumstances, wind energy development may be appropriately located in the Green Belt.

The current GCV Green Belt is defined by each local authority and each has the responsibility to identify what development is appropriate to a Green Belt location. This approach continues in the SDP.

- **Cumulative Impact and Landscape Capacity**

Scottish Government advice (the SPP and Planning Advice Note (PAN) 45 Annex A) identifies cumulative impact and landscape capacity as being critical to the process of assessing the suitability of the location of wind energy development proposals. When considering cumulative impact, planning authorities are required to take account of existing wind farms, those which have permission and valid applications for wind farms which have not been determined.

Assessing cumulative landscape and visual impacts is not straightforward and is a specialist field. Cumulative effects may be perceived when more than one wind farm is visible from one viewpoint, when several are seen during a journey and

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<sup>1</sup> <http://www.scotland.gov.uk/Publications/2006/06/02093425/0>

when there is a gradual increase in the number or size of wind farms over time although it cannot be assumed that a cumulative impact will necessarily be negative.

The Scottish Government wishes development plans to identify those areas where there are existing wind farm developments and set out, in relation to scale and proximity of further development, the critical factors which are likely to present an eventual limit to development. Determining landscape capacity and cumulative impact therefore requires detailed site analysis across the whole SDP area.

There is agreement between the Joint Committee and the eight constituent authorities that the SDPA does not issue instruction on site specific issues and therefore it is not the role of this report to determine the critical factors which are likely to present an eventual limit to development. Instead, this report seeks to strike an informed balance, providing the strategic information which will underpin knowledgeable detailed analyses of cumulative impact and landscape capacity at the local authority level. The current GCV situation is illustrated on Map 3.

In the spirit of the SPP and the agreement between the GCVSDPA Joint Committee and its constituent local authorities, this report identifies those areas where there are existing wind farms. It stops short of setting out, the critical factors which are likely to present an eventual limit to development as this is considered more appropriately dealt with at an individual authority level based on local circumstances. Notwithstanding this agreement, monitoring returns show a situation whereby there are an increasing number of wind farms of less than 20MW. There is clearly a role for the eight authorities to continue working together to monitor this situation and combine local authority findings on cumulative impact at a later date.

Two of the GCV constituent local authorities under particular pressure from medium to large scale wind farm development. North and South Lanarkshire councils have undertaken detailed site work on cumulative impact and landscape capacity and produced supplementary planning guidance. North and South Lanarkshire have prepared supplementary guidance for their area and this guidance will form the basis for determination of proposals in these areas.

## **Stage 2 - Other Relevant Constraints**

Having identified the areas of significant protection, the next step is to identify and describe other potential constraints. It is recognised that the identification of a constraint does not lead to a blanket restriction on development. The following constraints were considered within the context of the MIR.

- regional and local heritage designations
- historic environment;
- tourism and recreation;
- communities;
- aviation and defence;
- broadcasting installations.



- **Regional and Local Heritage Designations**

The GCVSDPA area contains a number of areas designated for their regional and local natural heritage value, including regional parks, Areas of Great Landscape Value etc. However, many of these are not necessarily relevant within the strategic planning context.

- **Historic Environment**

The SDP area contains a number of notable historic environments including:

- World Heritage Sites;
- Scheduled Ancient Monuments; and,
- Conservation areas, designed gardens and landscapes.

- **Tourism and Recreation Interests**

There is the potential that poorly sited and designed wind farms will affect adversely tourism and the following criteria should be useful in determining the potential impact of a wind farm proposal:

- the location in relation to tourist routes, including designated cycling and walking routes;
- the relative scale of recreation and tourism in the area i.e. local and national; and
- the potential positive tourism issues associated with the development.

- **Communities**

A separation distance of up to 2km between areas of search and the edge of settlements is recommended to guide developments to the most appropriate sites and to limit visual impact. This has been applied to the communities within the GCV area.

In making decisions on proposed developments, it is important to note the 2km community buffer does not imply a blanket restriction on development and does not impose an additional zone of protection around areas designated for their landscape or natural heritage value. Local authorities should take into account specific local circumstances and geography.

- **Aviation and Defence**

PAN 45 provides background advice on this topic but this is a complex area. It is clear that large-scale wind farm proposals have the potential to impact significantly on primary, secondary or weather radar stations and thus affect public safety. Current advice from aviation and defence consultees is that all applications will be judged on a case by case basis and that applicants are encouraged to engage with the aviation and defence consultees at an early stage to ensure that issues are identified and resolved where feasible. The relevant consultees are National Air Traffic Service, Civil Aviation Authority, Ministry of Defence, British Airports Authority and other airport operators.

- **Broadcasting Installations**

There may also be an issue with broadcast interference, however, it is for the applicant to show that they have consulted the network owners and that the latter

are satisfied with the proposal. As with aviation and radar issues, it may not be possible to resolve matters in advance of a specific proposal coming forward and therefore this level of detail is more appropriately dealt with at local authority level.

The key characteristics of all the constraints outlined above have helped identify criteria which should be helpful to local development plans policies. These are discussed in more detail below.

### **Stage 3 - Broad Areas of No Significant Constraint**

Having identified areas requiring significant protection and other relevant constraints areas where there are no significant constraints on development have been identified. This is essentially the broad areas of search at the regional level. It is recognised that within these areas of search sites may be further constraints such as landscape capacity and cumulative impact, other natural heritage interests, project viability, including wind speed, site access, ground suitability and other environmental factors; and grid capacity and that these are more appropriately dealt with at local authority level.

### **Stage 4 - Identifying Broad Areas of Search**

Stages 1 and 2 have identified the broad areas of search. These have been mapped and are shown in Map 6. It should be noted that the broad areas do not take account of landscape and visual impacts and cumulative impacts. These matters will be addressed by the individual councils.

Determining the suitability of any particular location for wind energy development and the development of detailed assessment criteria is therefore a matter for local development plans and/or supplementary guidance. It should therefore be noted that the location of a proposed wind farm within a GCV-wide Broad Area of Search does not guarantee planning permission will be granted.

The identification of 'broad areas of search' should not imply that other areas may not be considered in the context of specific applications but in each instance, detailed guidance should be sought from the relevant local authorities.

- **Criteria-Based Policies**

Planning authorities are expected to support wind farm development in locations where the technology can operate efficiently and where environmental and cumulative impacts can be satisfactorily addressed. This report seeks to provide a clear indication of the potential for development of wind farms in the GCV area and highlights criteria that should be considered by the constituent Local Authorities in deciding applications for all wind farm developments. It is recognised that such criteria will vary depending on the scale of development and its relationship to the characteristics of the surrounding area, but are likely to include:

- landscape and visual impact. This involves detailed site work and is more appropriately dealt with at local authority level;
- impact on the natural and built heritage. In certain instances, this may be strategically relevant.

- contribution to the development of renewable energy generation targets;
- effect on the local and national economy and tourism and recreation interests;
- benefits and dis-benefits for communities;
- aviation and telecommunications; and,
- cumulative impact. This involves detailed site work and is more appropriately dealt with at a local authority level.

### 3. **Conclusion**

This report is both a methodological and technical review of the previous Technical Report, TR8/06, Renewable Wind Energy in Glasgow and the Clyde Valley, which accompanied the 2006 Third Alteration to the Structure Plan.

It has partially followed the methodology outlined in PAN 45 Annex 2 as its frame but has stopped short of analysing local information as this is more appropriately dealt with at local authority level.

It has taken account of and outlined the nature and location of the relevant strategic constraints and it has identified indicative broad areas of search to support the MIR and the subsequent SDP.

For the reasons outlined earlier in this report, the search areas do not take account of landscape and visual impacts and cumulative impacts. These matters will be addressed by the individual councils in their supplementary planning guidance.

The broad areas of search for wind farm developments of 20MW or more have been identified and are shown on Map 6.







GLASGOW and  
the CLYDE VALLEY  
strategic development  
planning authority

## Spatial Framework for Wind Farms

### Map 6 Broad Areas of Search (Stage 4)



#### Legend

-  Broad Areas of Search
-  Built up Area
-  GCVSDP boundary
-  Local Authority boundary

NOTE: Cumulative impact limits have not been assessed at the regional level. Please refer to the relevant local authority for further guidance on this issue.



Date: 29/3/10

Scale: 1:325,000

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